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ABSTRACT

The primary purpose of this study was to determine the relationship between the attitudes held by administrators and counselors toward vocational education (as measured by the ATVE Scale) and the attitudes and abilities of students from their schools attending the area vocational-technical school. Data were analyzed from 10 administrators and 10 counselors from schools participating in an area vocational-technical school as well as from students enrolled in the school for the first time. Student attitudes and characteristics at schools where the administrator or counselor scored above the mean on the ATVE scale were compared to the same criteria of the students from schools where the administrator or counselor scored below the mean on the ATVE Scale. An analysis of the data revealed: (1) There is a correlation between administrator and counselor attitudes toward vocational education (as measured by the ATVE Scale) and student variables, as shown by General Learning Ability scores and occupational pattern test scores, and (2) The more positive counselor and administrator attitudes were related directly to better student scores on these tests. (Author/AG)

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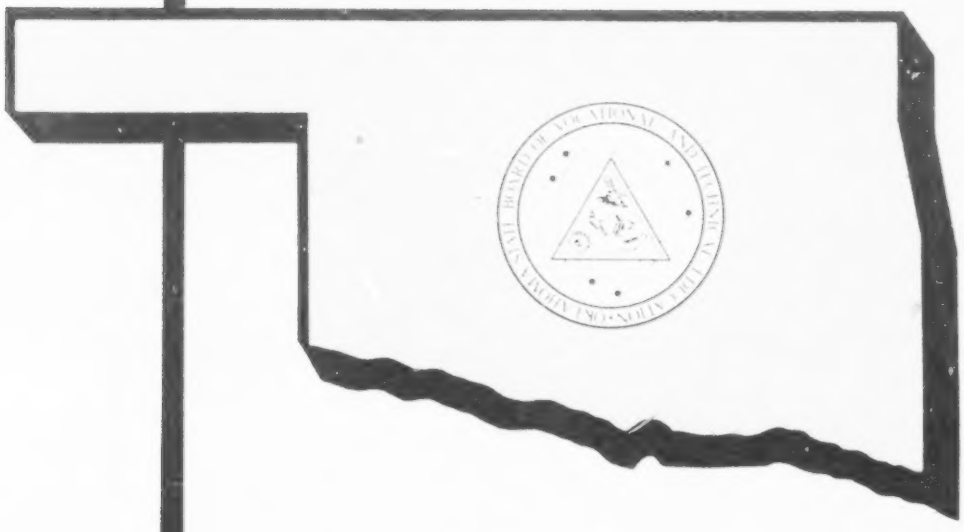
The Association Between Local School Administrators' Attitudes Toward Vocational Education And Students' Participation In An Area Vocational-Technical School

Glen Martin Gardner



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THE ASSOCIATION BETWEEN LOCAL SCHOOL ADMINISTRATORS' AND COUNSELORS' ATTITUDES TOWARD VOCATIONAL EDUCATION AND STUDENTS' PARTICIPATION IN AN AREA VOCATIONAL-TECHNICAL SCHOOL

By

GLEN MARTIN GARDNER

ROBERT R. PRICE

WILLIAM W. STEVENSON

Division of Research, Planning, and Evaluation
State Department of Vocational and Technical Education
Stillwater, Oklahoma

ABSTRACT

Scope of Study: The primary purpose of this study was to determine the relationship between the attitudes held by administrators and counselors toward vocational education (as measured by the ATVE Scale) to the attitudes and abilities of students from their schools attending the area vocational-technical school.

The study analyzed data from 10 administrators and 10 counselors from the schools participating in the area vocational-technical school and the students from these schools who were enrolled in the Canadian Valley Area Vocational-Technical School for the first time. The attitudes toward vocational education held by the students, the General Learning Ability scores, and the occupational pattern scores of students from schools where the administrator and/or counselor scored above the mean on the ATVE Scale were compared to the same criteria of the students from schools where the administrator and/or counselor scored below the mean on the ATVE Scale.

Findings and Conclusions: An analysis of the data resulted in the following conclusions: Students from schools where the administrator and/or counselor scored above the mean on the ATVE Scale also scored higher on the ATVE Scale, had generally higher General Learning Ability scores, and a higher percentage passed the occupational pattern for the vocational program in which they were enrolled than did students from schools where the administrator and/or counselor scored below the mean on the ATVE Scale. None of the administrators or counselors surveyed had negative attitudes toward vocational education; however, their attitudes could definitely be classified as less positive and more positive.

There does appear to be a relationship between the attitudes held by the administrator and/or counselor toward vocational education (as measured by the ATVE Scale) and the student variables measured in the study.

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CHAPTER I

INTRODUCTION

The public schools of Oklahoma face a unique challenge in the years ahead. They are charged with preparing all young people for the world of work, upgrading present workers, and re-training the large number of adults who need new skills. The 1968 Vocational Education Amendments placed emphases on the individual and not on any particular program. Never before in history has vocational education faced such a challenge nor had as many funds to enact programs that would meet the goal of a true education for all.

In the Second Report of the National Advisory Council on Vocational Education (1969), the following statement is made:

> One of the major reasons why vocational education has not been more extensively developed in the public schools of the Nation is that there has been little commitment to do so. The driving urge to provide vocational education opportunity has been lacking in most public schools.

This report further states that a commitment must be forthcoming from all levels of education. This should include a complete program starting in the elementary levels with career orientation, to the Junior High School with career exploration, and into the Senior High School where adequate counseling and leadership from all levels of the administration is important for proper vocational choice.

Oklahoma has answered the challenge of education for all with the Area School concept and improvement of the vocational programs in the local schools. Programs must be developed that provide the right combination of courses for each individual student. It then becomes imperative that students receive assistance and guidance in selecting the program that will serve them best.

Miller (1971) states that surveys at Oklahoma State Tech indicate that a very small percentage of the students enrolled there have been referred to the school by counselors

or administrators at the students' home schools. Vocational-technical educators must become aware of this problem and study ways to correct it. What are the attitudes of administrators and counselors toward vocational education? How do their attitudes relate to the attitudes of the students from their schools who attend the area schools?

Statement of the Problem

The National Advisory Council (1968) concluded the first annual report by stating:

> We have promoted the idea that the only good education is an education capped by four years of college. This idea infects students who make inappropriate choices because they are victims of a national yearning for prestige.

Administrators of area vocational-technical programs repeatedly encounter difficulty in contacting and enrolling students whose abilities match program offerings which are based on employment opportunities.

The fact that administrators' attitudes could unduly influence students in making training and occupational choices was the major concern in planning and developing this study. Students who are enrolling in only academic courses could possibly be ignoring vocational-technical education because of such public school orientation.

Purposes of the Study

The major purpose of the study was to determine if a significant association existed between administrators' and/or counselors' attitudes toward vocational education and the general learning abilities, skill aptitudes, and attitudes toward vocational education of students from their school who are currently attending an area vocational-technical school.

The secondary purposes of the study were identified to determine:

1. If there was a significant difference between the attitudes toward vocational education of local school administrators and counselors.
2. If there was an association between the attitudes toward vocational education of administrators and counselors serving in the same school.
3. If a significant association exists between the individual student's dogmatism score and his attitude toward vocational education.

4. If a significant student attitude toward vocational education change occurred after one semester of enrollment at an area vocational-technical school and if this change might be associated with his score on the dogmatism scale if such a change did occur.

Population

All of the participating schools in the Canadian Valley Area Vocational-Technical School District were used in the study with the exception of El Reno and Chickasha. El Reno and Chickasha were not used because the Canadian Valley Area School's two centers are located in these two cities. Ten schools were used in the study.

All administrators and counselors of the participating schools were surveyed as to their attitudes toward vocational education (as measured by the ATVE Scale).

All students enrolled at the Area School for the first time were surveyed as to their attitudes toward vocational education (as measured by the ATVE Scale), their tendency to be open or closed minded (as measured by Rokeach's Scale, Form E), their general learning abilities, and their skill aptitudes (as measured by the GATB). The students were given the ATVE Scale at the start of the semester and again at the close of the semester.

Instruments Used

The investigator used two instruments in this study. One was an attitude toward vocational education scale developed at the University of Nebraska. This scale was developed by a research team led by Mr. John Engler. The second instrument used was the Rokeach Dogmatism Scale, Form E. In addition to these two instruments, information that had previously been recorded for the students' achievements in General Learning Ability and Skills Aptitudes as measured by the GATB (see Appendix B) was used in the study.

The ATVE test was administered to all administrators, counselors, and students selected for the study in September and October of 1971. The scale was also again administered to the students in January of 1972. The Rokeach Dogmatism Scale was administered to the students at the same time that the first ATVE test was given.

Hypotheses Tested

1. There is no significant difference between administrators as a group and counselors as a group in terms of attitudes held toward vocational education.

2. There is no significant difference between attitudes held by counselors as individuals and that of their chief school officers (administrators) as individuals in terms of attitudes held toward vocational education.

3. There is no significant difference in the attitudes of students from schools where administrators had a more positive attitude toward vocational education and those from schools where the administrator had a less positive attitude toward vocational education.

4. There is no significant difference in the attitudes of students from schools where counselors had a more positive attitude toward vocational education and those from schools where the counselors had a less positive attitude toward vocational education.

5. There is no significant difference in the general learning abilities of students from schools where the administrator had a less positive attitude toward vocational education and those from schools where the administrator had a more positive attitude toward vocational education.

6. There is no significant difference in the general learning abilities of students from schools where the counselors had a less positive attitude toward vocational education and those from schools where the counselors had a more positive attitude toward vocational education.

7. There is no significant difference in the general skills aptitudes of students from schools where the administrator had a less positive attitude toward vocational education and those from schools where the administrator had a more positive attitude toward vocational education.

8. There is no significant difference in the general skills aptitudes of students from schools where the counselors had a less positive attitude toward vocational education and those from schools where the counselors had a more positive attitude toward vocational education.

9. There is no significant change in students' attitudes toward vocational education after one semester of attendance at the Area Vocational-Technical School.

CHAPTER II

PRESENTATION AND ANALYSIS OF THE DATA

The results of this study are presented in five sections with a summary and general discussion of the results at the end of the chapter. The first section deals with the attitudes of administrators and counselors toward vocational education and the relationship of these attitudes.

The second section deals with the relationship of the attitudes of administrators and counselors toward vocational education to that of the attitudes of students from their schools toward vocational education.

The third section considers the relationship of the attitudes of administrators and counselors toward vocational education to the General Learning Ability scores as measured by the GATB (see Appendix B) of the students from their school who are enrolled for the first time in the Canadian Valley Area Vocational-Technical School.

The fourth section attempts to determine the relationship of the attitudes of administrators and counselors toward vocational education to the skills aptitudes of the students from their school who are enrolled for the first time in the Area Vocational-Technical School.

The fifth section examines the change of attitude toward vocational education after one semester at the Area Vocational-Technical School.

The chapter closes with a summary and general discussion of the results.

Relationship Between the Attitudes of Administrators and Counselors Toward Vocational Education

Hypothesis No. 1:

> There is no significant difference between the attitudes of administrators and counselors toward vocational education.

The ATVE Scale was administered to each of the school administrators and counselors of the participating schools in the Canadian Valley Area Vocational-Technical School District.

The administrators had scores ranging from 129 to 163 with a mean of 143.2 while counselors' scores ranged from 115 to 160 with a mean of 138.7. The Mann-Whitney U was used to test the hypothesis.

Although the mean of the administrators was slightly higher than that of the counselors and three of the counselors scored the lowest of the combined groups, there was no indicated tendency for one group to score higher than the other.

Hypothesis No. 2:

> There is no significant ~~difference~~ relationship between attitudes held by counselors as individuals and that of their chief school officers (administrators) as individuals in terms of attitudes held toward vocational education.

TABLE I

ATVE SCORES OF ADMINISTRATORS AND COUNSELORS

School Number	Administrators' ATVE Score	Rank	Counselors' ATVE Score	Rank
1	163	1	156	2
2	157	2	140	5
3	152	3	147	3
4	147	4	128	8
5	145	5	143	4
6	138	6	160	1
7	135	7	133	7
8	134	8	127	9
9	132	9	138	6
10	129	10	115	10

The results were significant at the .10 level and indicate that there does appear to be a definite relationship in a majority of the schools. Six of the schools had a difference of one or less.

Attitudes of Administrators and Counselors as Related to Attitudes of Students

This section examines the possible relationship that may exist between the attitudes of administrators and counselors toward vocational education to that of the students from their school who enroll in an area vocational-technical school.

Hypothesis No. 3:

> There is no significant difference in the attitudes of students from schools where the administrator had a more positive attitude toward vocational education and those from schools where the administrator had a less positive attitude toward vocational education.

TABLE II

RELATIONSHIP BETWEEN ADMINISTRATORS' AND STUDENTS' ATVE SCORES

Administrators' Scores	Students' Scores No. Above Mean	No. Below Mean	Totals
Above Mean	67	44	111
Below Mean	27	71	98
Totals	94	115	209

An analysis of these data indicates that there was a significant difference in the ATVE scores of students from schools where the administrator scored above the mean on the

ATVE Scale and of students from schools where the administrator scored below the mean on the ATVE Scale. An examination of these data reveals that a higher percentage of the students scored above the mean on the ATVE Scale if their administrator also scored above the mean on the scale.

Hypothesis No. 4:

> There is no significant difference in the attitude of students from schools where counselors had a more positive attitude toward vocational education and those from schools where the counselors had a less positive attitude toward vocational education.

TABLE III

RELATIONSHIP BETWEEN COUNSELORS' AND STUDENTS' ATVE SCORES

Counselors' Scores	Students' Scores Above the Mean	Below the Mean	Totals
Above Mean	67	43	110
Below Mean	27	72	99
Totals	94	115	209

A comparison of Table II and Table III reveals similar findings. A higher percentage of students scored above the mean on the scale if they were from schools where the counselor also scored above the mean.

As this study was concerned with both the relationship of administrators' and counselors' ATVE scores to that of the students from their schools, it was felt that a composite table might be more revealing than a separate table. Table IV, therefore, examines the relationships that exist when both the administrator and counselor scored above the mean, either the administrator or counselor scored above the mean and the other scored below the mean, and when both the administrator and the counselor scored below the mean.

TABLE IV

RELATIONSHIP OF ATVE SCORES

Administrators' and Counselors' Scores	Students' Scores Above the Mean	Below the Mean	Totals
*Plus Plus	59	36	95
**Plus Minus	16	15	31
***Minus Minus	19	64	83
Totals	94	115	209

*Administrator and counselor scoring above the mean
**Either administrator or counselor scoring above the mean, with the other scoring below the mean
***Administrator and counselor scoring below the mean

An examination of the data in Table IV yields some interesting information. Over 62 percent of the students from schools where both the administrator and counselor scored above the mean on the ATVE also scored above the mean on the ATVE Scale. Students from the schools where either the administrator or counselor scored above the mean and the other below the mean were almost equally divided above and below the mean, but less than 23 per cent of the students from schools where both the administrator and counselor scored below the mean scored above the mean.

Attitudes of Administrators and Counselors as Related to General Learning Ability of Students Enrolled in the Area Vocational-Technical School

All of the students in the study had previously been given the GATB (see Appendix B) or were given it during September of 1971. The scores were tabulated by schools

to determine if there was a relationship between the general learning abilities of students and the scores of administrators and/or counselors on the ATVE Scale.

Hypothesis No. 5:

> There is no significant difference in the general learning abilities of students from schools where the administrator had a less positive attitude toward vocational education and those from schools where the administrator had a more positive attitude toward vocational education.

The schools were divided as those having administrators who scored above the mean on the ATVE Scale and those having administrators who scored below the mean.

TABLE V

STUDENTS' GLA SCORES AS RELATED TO ADMINISTRATORS' ATVE SCORES

Administrators' ATVE Scores	Students' Scores Above the Mean	Below the Mean	Totals
Above Mean	70	41	111
Below Mean	34	64	98
Totals	104	105	209

Analysis of Table V reveals that students from schools having administrators who scored above the mean on the ATVE Scale definitely had higher GLA scores than students from schools where the administrators scored below the mean on the Scale.

Hypothesis No. 6:

> There is no significant difference in the general learning abilities of students from schools where the counselors had a less positive attitude toward vocational education and those from schools where the counselors had a more positive attitude toward vocational education.

TABLE VI

STUDENTS' GLA SCORES AS RELATED TO COUNSELORS' ATVE SCORES

Counselors' ATVE Scores	Students' GLA Scores Above the Mean	Below the Mean	Totals
Above Mean	63	47	110
Below Mean	41	58	99
Totals	104	105	209

Although the results were not as striking as those obtained for the administrators, it was still apparent that there was a relationship between the counselors who scored above the mean and the percentage of students from their schools who scored high on the GLA as compared to students from schools where the counselor scored below the mean.

The table on the following page examines the relationships that exist as a result of considering both the administrators' and the counselors' ATVE scores.

An analysis of the data indicates a definite relationship between the ATVE scores of the administrators and counselors and the GLA of students from their school who were enrolled in the Canadian Valley Area Vocational-Technical School. It is interesting to note that in instances where either the administrator or counselor scored above the mean on the ATVE Scale and the other below the mean, the students from their schools were almost evenly divided as above and below the mean on the GLA section of the GATB.

TABLE VII

STUDENTS' GLA SCORES AS RELATED TO ADMINISTRATORS' AND COUNSELORS' ATVE SCORES

Administrators' and Counselors' ATVE Scores	Students' GLA Scores Above the Mean	Below the Mean	Totals
*Plus Plus	59	36	95
**Plus Minus	15	16	31
***Minus Minus	30	53	83
Totals	104	105	209

*Administrator and counselor scoring above the mean
**Either administrator or counselor scoring above the mean with the other scoring below mean
**Administrator and counselor scoring below the mean

Attitudes of Administrators and Counselors as Related to Skills Aptitudes of Students Enrolled in the Area Vocational-Technical School

In addition to general learning ability, the GATB measures eight other abilities. Minimum scores in various abilities are considered essential for success in various occupations. A pattern has been established for each of the many occupations for which the GATB tests. The Canadian Valley Area Vocational-Technical School personnel, using the GATB data, have established patterns to determine probable success in the programs offered at the two centers.

Students are encouraged by both area school counselors and home school personnel to select only programs of study for which appropriate pattern achievements have been met.

Hypothesis No. 7:

> There is no significant difference in the general skills aptitudes of students from schools where the administrator had a less positive attitude toward vocational education and those from schools where the administrator had a more positive attitude toward vocational education.

TABLE VIII

STUDENTS' OCCUPATIONAL PATTERN SCORES AS RELATED TO ADMINISTRATORS' AVTE SCORES

Administrators' ATVE Scores	Students Occupational Pattern Scores Passed	Failed	Totals
Above Mean	101	10	111
Below Mean	63	35	98
Totals	164	45	209

An analysis of the data in Table VIII reveals that there was a relationship between the administrators' ATVE scores and the number of students from their schools who passed the pattern for the vocational-technical course in which they were enrolled. Also apparent is the fact that a higher percentage of students passing the pattern were from schools where the administrator scored above the mean on the ATVE Scale.

Hypothesis No. 8:

> There is no significant difference in the general skills aptitudes of students from schools where the counselors had a less positive attitude toward vocational education and those from schools where the counselor had a more positive attitude toward vocational education.

An analysis of this data reveals that there is a relationship between the participating counselors' ATVE scores and the number of students from their school who enrolled in programs for which they had passed the occupational pattern (Table IX).

TABLE IX

STUDENTS' OCCUPATIONAL PATTERN SCORES AS RELATED TO COUNSELORS' ATVE SCORES

Counselors' ATVE Scores	Students' Occupational Pattern Scores		Totals
	Passed	Failed	
Above Mean	93	17	110
Below Mean	71	28	99
Totals	164	45	209

TABLE X

STUDENTS' OCCUPATIONAL PATTERN SCORES AS RELATED TO ADMINISTRATORS' AND COUNSELORS' ATVE SCORES

Administrators' and Counselors' ATVE Scores	Students' Occupational Pattern Scores		Totals
	Passed	Failed	
*Plus Plus	86	9	95
**Plus Minus	22	9	31
***Minus Minus	56	27	83
Totals	164	45	209

*Administrator and counselor scoring above the mean
**Either administrator or counselor scoring above the mean with the other scoring below the mean
***Administrator and counselor scoring below the mean

Analysis of Table X reveals that there was a definite relationship between students' occupational pattern scores and the composite ATVE scores of their administrators and

counselors. The combined effects of positive or negative attitudes on the part of administrators and counselors are clearly shown.

Do students' attitudes toward vocational education change after one semester at an Area Vocational-Technical School? This investigator deemed this an important question that should be answered.

Hypothesis No. 9:

> There is no significant change in students' attitudes, as measured on the ATVE Scale, after one semester of attendance at the Area Vocational-Technical School.

The basic sign test formula was used to test this hypothesis (Siegel, 1956):

$$z = \frac{(X - .5) - 1/2\ (N)}{1/2\ N}$$

$$z = \frac{(127 - .5) - 1/2\ (167)}{1/2\ (167)}$$

$$z = 6.65$$

This is significant beyond the .001 level; therefore, the null hypothesis was rejected.

An analysis of the data revealed that the direction of change was toward a more favorable attitude toward vocational education after one semester at the vocational-technical school. At least a part of this change can be attributed to an increase in knowledge about vocational education.

Chapter Summary

An analysis of the data collected for this study revealed that there was a difference between the attitudes of administrators and counselors toward vocational education as measured by an ATVE Scale. There was a relationship between the ATVE scores of administrators and counselors and the general learning ability and skills aptitudes of students from their schools enrolled in the Canadian Valley Area Vocational-Technical School. There was a definite change in students' attitudes toward vocational education after one semester at the Area Vocational-Technical School. The students' attitudes tended to become definitely more favorable toward vocational education.

CHAPTER III

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study considered the possible relationship of attitudes of administrators and counselors, or persons serving as counselors, to several student variables. The area studied was the Canadian Valley Area Vocational-Technical School District with centers at El Reno and Chickasha, Oklahoma. Ten participating schools were studied. El Reno and Chickasha independent school districts were not studied in order to eliminate the possibility of bias since the two vocational-technical centers are located in these two cities.

Data were collected from each of the ten schools and also from the students from these schools who were enrolled for the first time in the Area Vocational-Technical School. Second-year students were not included in the study because of the possible influence of the Area Vocational-Technical School program on the students' attitudes toward vocational education.

It was presumed that the administrators' and counselors' attitudes toward vocational education would be related to the attitudes of students and would also have a relationship to the type of student from their school who chose to enroll in the Area Vocational-Technical School.

The administrators' ATVE scores ranged from 129 to 163 with a mean of 143.2. Five administrators scored above the mean and five below. The counselors' ATVE scores ranged from 115 to 160 with a mean of 138.7. Five of the counselors scored above the mean and five scored below. In four of the schools where the administrator scored above the mean, the counselor also scored above the mean. Statistical tests revealed that there was no significant difference in attitude toward vocational education between the administrators and counselors. They also revealed that in most of the schools, the counselor and the administrator tended to have similar attitudes toward vocational education. This tendency was not significant at the .05 level, but was significant at the .10 level.

An analysis of the data indicated that students from schools where the administrators and counselors scored high on the ATVE Scale also scored higher on the Scale than did students from schools where the administrators and counselors scored low.

Another interesting finding of this study was that students' attitudes toward vocational education do become more positive after one semester in the area vocational-technical school.

Conclusions

It was apparent that few, if any, of the administrators or counselors studied exhibited clearly unfavorable attitudes toward vocational education; however, there was revealed a variation which could be appropriately classified as less positive and more positive. Many of the less favorable perceptions of school personnel toward vocational education can, perhaps, be attributed to a possible lack of knowledge about vocational education and more specifically the proper place of the area vocational-technical school in the overall school program. It was of considerable interest to the investigator to observe that the two counselors who spent at least one day in the area school becoming familiar with the goals and objectives of the school scored the highest of all counselors responding to the ATVE Scale.

Area school students' abilities and attitudes toward vocational education do relate to their home school administrator's and/or counselor's attitude toward vocational education.

Implications of the Study

1. Further exploration of the feasibility of providing in-service courses for administrators, counselors, and other school personnel to assist these individuals in obtaining more knowledge concerning the function and purpose of vocational education.

2. Efforts should be made to provide school administrators' and counselors' knowledge of developing concepts of vocational education. This recommendation is prompted by the associations identified in this study and the potential for changed attitudes accompanying the acquisition of additional knowlege.

3. State and district vocational-technical personnel should give careful attention to the need for increased communication with local school administrators and counselors.

A SELECTED BIBLIOGRAPHY

Attitudes of Junior High School Staff Members Toward Vocational Education, Massachusetts Vocational Education Research Coordinating Unit, November, 1969.

Arnold, Joseph P. A Seminar on Graduate Education Programs. Columbus: Ohio State University, 1969.

Barlow, Melvin. Vocational Education. The Sixty-fourth Yearbook of the National Society for the Study of Education. Chicago: The University of Chicago Press, 1965.

Berg, Robert. "College Turns out Plumbers, Mechanics," Tulsa Daily World, November 14, 1971.

Chang, Sunnyuh Shir and James Rath. "The Schools Contribution to the Cumulating Deficit," The Journal of Education Research. Volume 64, Number 6, 1971.

Cronkhite, Kenneth K. "A Study of the Relationship of Selected Factors to Attendance of High School Students at the O. T. Autry Area Vocational-Technical School." Unpublished Report, Oklahoma State University, Stillwater, Oklahoma, 1971.

Divita, Charles, Jr. "Attitudes Toward Vocational Education in the Secondary Schools of West Virginia," July, 1968 (ED 029 984).

Harris, Lynn. "Lynn, How Could You! Said the Counselor," American Vocational Journal, Vol. 461/7, October, 1971.

Hoyt, Kenneth B. "The 'Image Gap' in Vocational Educational Counseling," School Shop, 29/6:22-24, February, 1970.

Jahoda, Marie and Neil Warren. Attitudes. Baltimore: Penguin Books, Inc., 1966.

Keller, Franklin J. Vocational Education. Chicago: The University of Chicago Press, 1965.

Klaurens, Mary K. "Occupational Experience and Career Development Training for Distributive Educators and Vocational Counselors." Final Report, Minnesota University, Minneapolis College of Education, 1970.

Miller, Wayne, Personal Interview. Okmulgee: Oklahoma State Technical Branch, April, 1971.

Mitchell, Donald L. "A Study of Attitudes, Interests, and Current Practices Related to Career Orientation Activities in the Elementary Schools in Oklahoma." Unpublished Ed. D. Dissertation, Oklahoma State University, Stillwater, Oklahoma, 1971.

Muskogee Daily Phoenix-Times Democrat. Editorial. Muskogee, Oklahoma, February 25, 1971.

National Advisory Council Report on Vocational Education, First Report, Washington, D.C., July 15, 1969.

National Advisory Council Report on Vocational Education, Second Report, Washington, D. C., November 15, 1969.

National Advisory Council Report on Vocational Education, Third Report, Washington, D. C., July 10, 1970.

Newsome, George L., Jr., Harold W. Gentry, and Lester D. Stephens. "Changes in Consistency of Educational Ideas Attributable to Student-Teaching Experiences," The Journal of Teacher Education, XVI (1965).

Norris, Marsena M. "Selected Behavioral Changes of Students Attending the Southern Oklahoma Area Vocational-Technical Center During 1966-67." Unpublished Ed. D. Dissertation, Oklahoma State University, Stillwater, Oklahoma, July, 1968.

Noll, Victor H. Introduction to Educational Measurement. Boston: Houghton-Mifflin Company, 1967.

Oklahoma Advisory Council to State Board for Vocational-Technical Education, First Report, Oklahoma City, 1969.

Popham, James W. Educational Statistics. New York: Harper and Roe, 1967.

Pritchard, Jack W. "A Study of Attitudinal Influences Determining Program Emphases of Beginning Teachers of Vocational Agriculture." Unpublished Ed. D. Dissertation, Oklahoma State University, Stillwater, Oklahoma, May, 1970.

Public Law 90-576. Amendments to The Vocational Education Act of 1963: U. S. Congress, 1968.

Remmers, H. H. Introduction to Opinion and Attitude Measurement. New York: Harper and Brothers, 1959.

Rokeach, Milton. The Open and Closed Mind. New York: Basic Books, Inc., 1960.

Rynyon, Richard P. and Audrey Haber. Fundamentals of Behavioral Statistics. Reading Massachusetts: Addison-Wesley Publishing Company, 1968.

Siegel, Sidney, Nonparametric Statistics For The Behavioral Sciences. New York: McGraw-Hill Book Company, 1956.

Shilt, Bernard A. "The Changing Image of Vocational-Technical Education," American Vocational Journal, February, 1970.

Shultz, Fred A. "Selected Aspects of Vocational Image as Perceived by a Public Categorized by Occupational Levels." Unpublished Ed. D. Dissertation, Oklahoma State University, Stillwater, Oklahoma, July, 1971.

Spengler, James P. "Attitudes of School Board Members Toward Occupational Education." Albany, New York: Bureau of Occupational Education, Research, February, 1970 (ED 042 029).

Tulsa Daily World. Editorial. November 14, 1971.

Van Dalen, Deobold B. Understanding Educational Research. New York: McGraw-Hill Book Company, 1966.

Venn, Grant. Man Education and Work. Washington, D. C.: American Council on Education, 1967.

Wiggins, Lloyd L. "A Study of Attitudinal Changes of Student Teachers in Agricultural Education." Unpublished Ed. D. Dissertation, Oklahoma State University, Stillwater, Oklahoma, 1968.

Zaleznik, Abraham and David Moment. The Dynamics of Interpersonal Behavior. New York: John Wiley and Sons, Inc., 1964.

APPENDIX A

ATVE SCALE

DEVELOPMENT OF THE ATVE SCALE

The ATVE Scale was developed at the University of Nebraska as a part of a study to accomplish the following: "The Development of Material for the Orientation of School Administrators to Vocational Needs and Programs."*

A research team, led by Mr. John Engler, developed sixty-seven items by working with other members of the project staff and consultants. After the items were constructed and given summated ratings, they were submitted to a panel of experts in the fields of test construction and vocational education to be analyzed for statements of ambiguity, double meaning, and factual rather than attitudinal content.

The revised items of the ATVE Scale were administered to a pilot group of graduate students who had extensive, some, and no experience in high school administration; all of whom were practicing administrators or were involved in administrative courses.

Analysis of the data from the pilot group revealed that 36 of the items discriminated for attitude toward vocational education at the .01 level and that ten additional items discriminated at the .05 level.

When the Scale was administered to superintendents and principals later in the study, a standard deviation was found that ranged from 8.1 to 13.9 among the various groups.

Results of the study indicated that the ATVE Scale was a very satisfactory instrument for measuring attitudes toward vocational education. The results approximated those of other types of scales and tests used in the study.

*Source: Sybouts, Ward and Wayne Krepel. "The Development of Material for the Orientation of School Administrators to Vocational Education Needs and Programs," Final Report, Project No. 5-0155, U.S. Department of Health, Education and Welfare, October 30, 1969.

APPENDIX B

APTITUDES MEASURED BY THE GATB

The nine aptitudes measured by the GATB are listed below with the letter used as the symbol to identify each aptitude:

G-Intelligence: General Learning Ability. The ability to "catch on" or or understand instructions and underlying principles; the ability to reason and make judgments. Closely related to doing well in school.

V-Verbal Ability: The ability to understand meaning of words and to use them effectively. The ability to comprehend language and to understand relationships between words; to understand meanings of whole sentences and paragraphs.

N-Numerical Aptitude: Ability to perform arithmetic operations quickly and accurately.

S-Spatial Aptitude: Ability to think visually of geometric forms and to comprehend the two-dimensional representation of three-dimensional objects. The ability to recognize the relationships resulting from the movement of objects in space.

P-Form Perception: Ability to perceive visual comparisons and discriminations and see slight differences in shapes and shadings of figures and widths and lengths of lines.

Q-Clerical Perception: Ability to perceive pertinent detail in verbal or tabular material. Ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation.

K-Motor Coordination: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and swiftly.

F-Finger Dexterity: Ability to move the fingers and manipulate small objects with the fingers, rapidly and accurately.

M-Manual Dexterity: Ability to move the hands easily and skillfully. Ability to work with the hands in placing and turning motions.

Source: United States Department of Labor: General Aptitude Test Battery, B-1002, Government Printing Office, Washington, D. C., 1970.

APPENDIX C

TABLES OF SUMMARY OF DATA

TABLE XI

ATVE SCORES OF ADMINISTRATORS AND COUNSELORS (OR PERSONS SERVING AS COUNSELORS) AND THE MEAN ATVE SCORE OF STUDENTS FROM THEIR SCHOOL

School No.	Administrators' ATVE Score	Counselors' ATVE Score	Students' Mean ATVE Score
1	163	156	136.6
2	157	140	129.8
3	152	147	130.5
4	147	128	125.(
5	145	143	127.8
6	138	160	121.2
7	135	133	118.0
8	134	127	123.5
9	132	138	122.6
10	129	115	121.4